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FIG. 1A

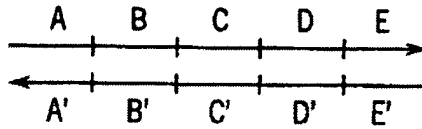


FIG. 1B

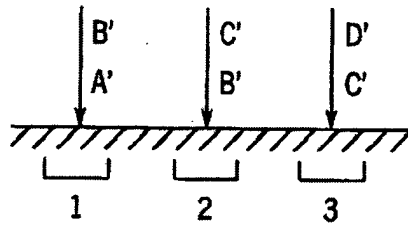


FIG. 1C

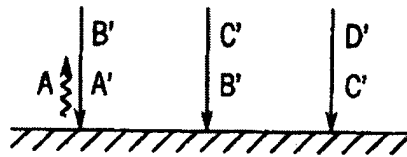


FIG. 1D

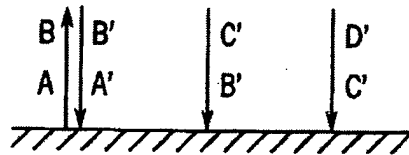


FIG. 1E

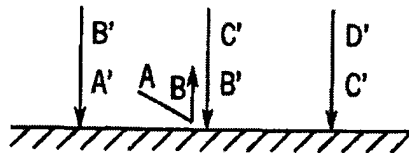


FIG. 1F

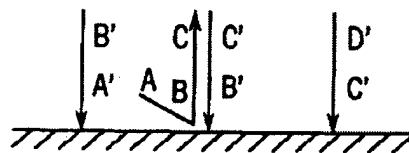


FIG. 2A

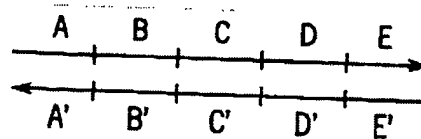


FIG. 2B

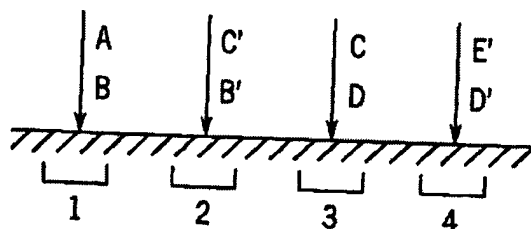


FIG. 2C

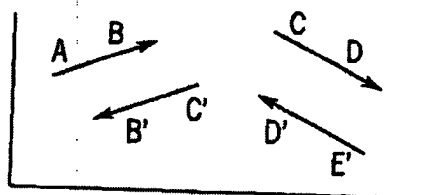


FIG. 2D

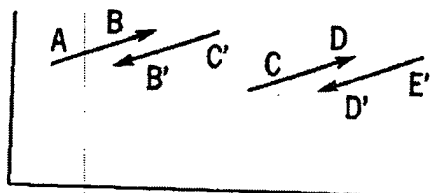


FIG. 2E

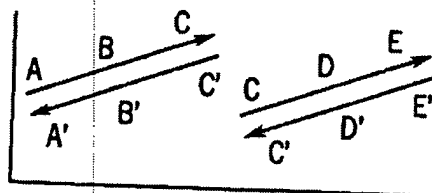


FIG. 2F

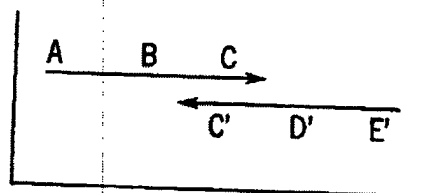


FIG. 2G

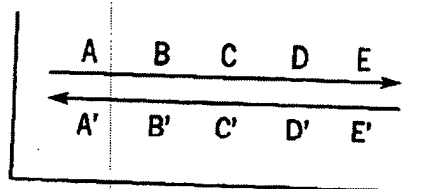


FIG. 3A

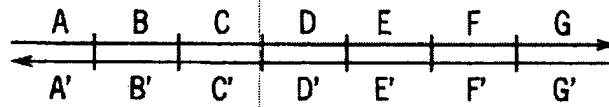


FIG. 3B

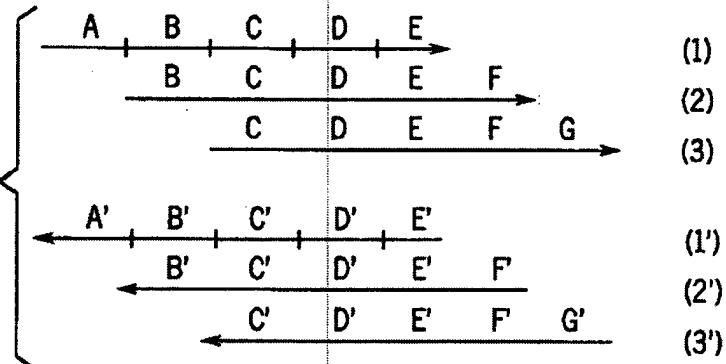


FIG. 3C

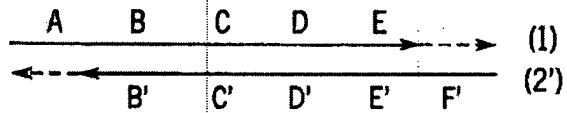


FIG. 3D

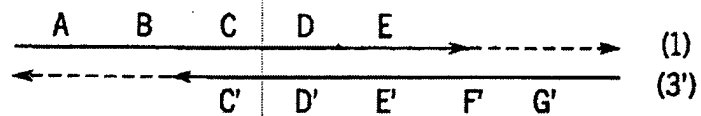


FIG. 4

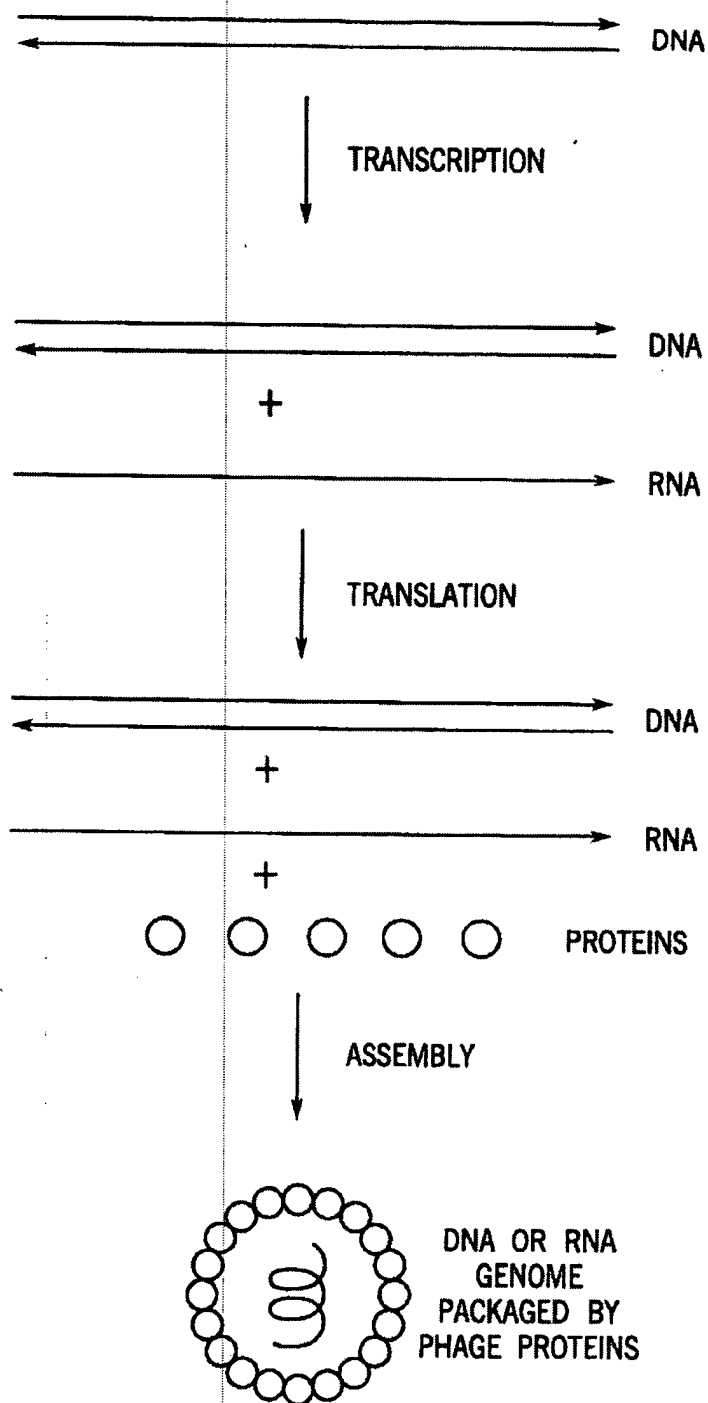
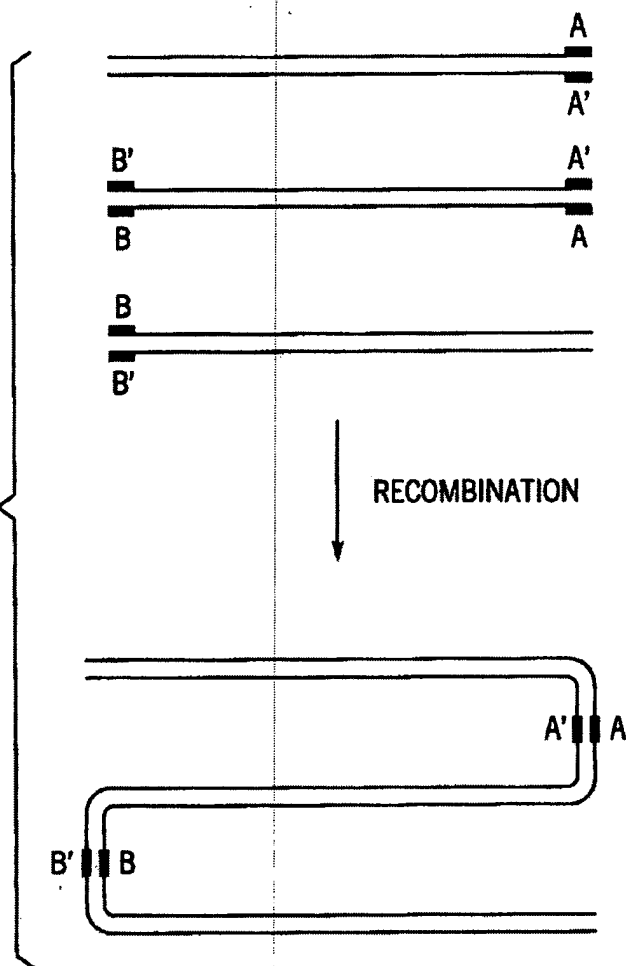
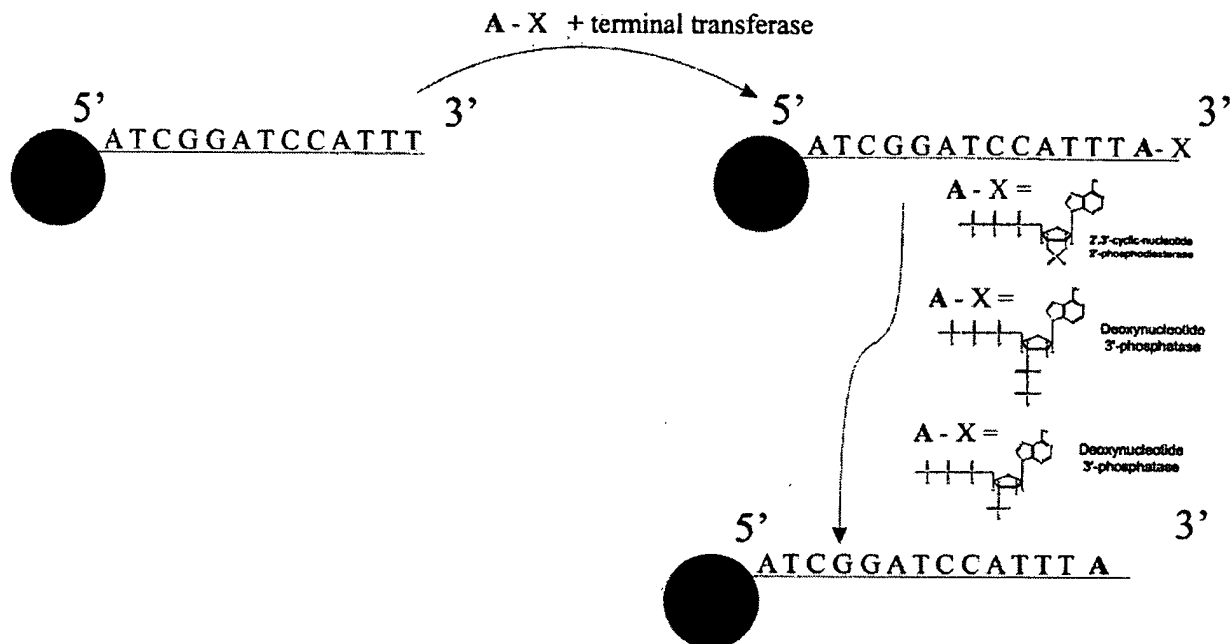


FIG. 5



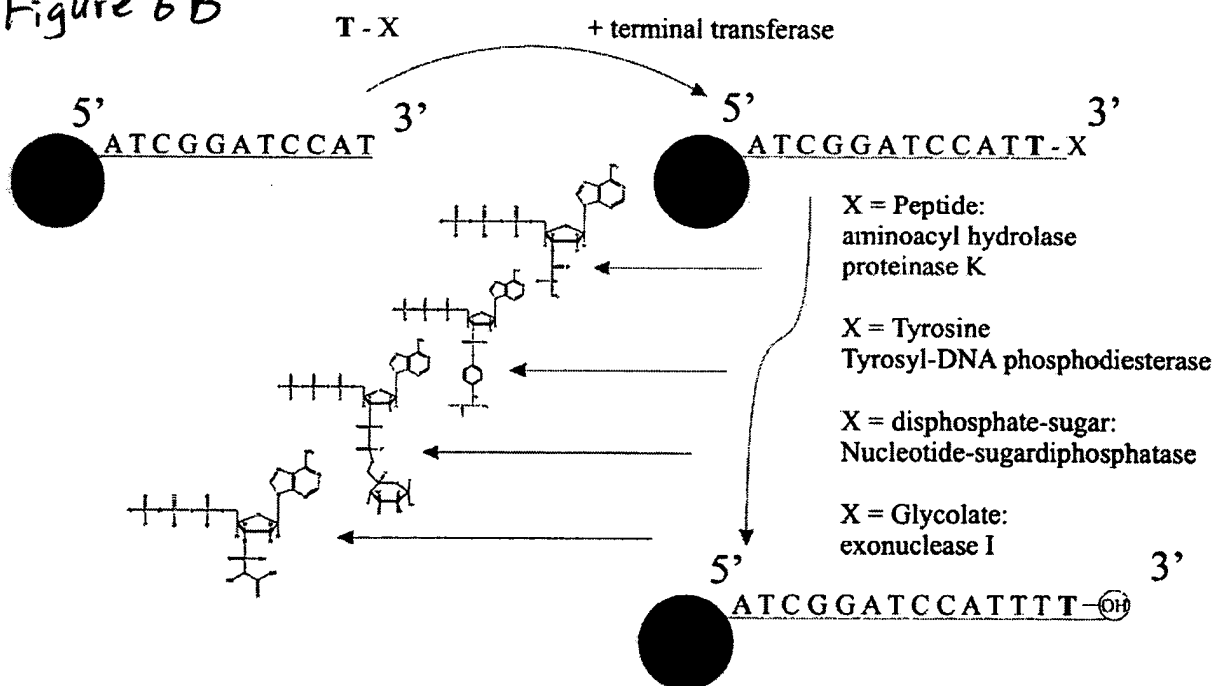
# Figure 6A

Single strand oligonucleotide synthesis with phosphate or derivative capping group



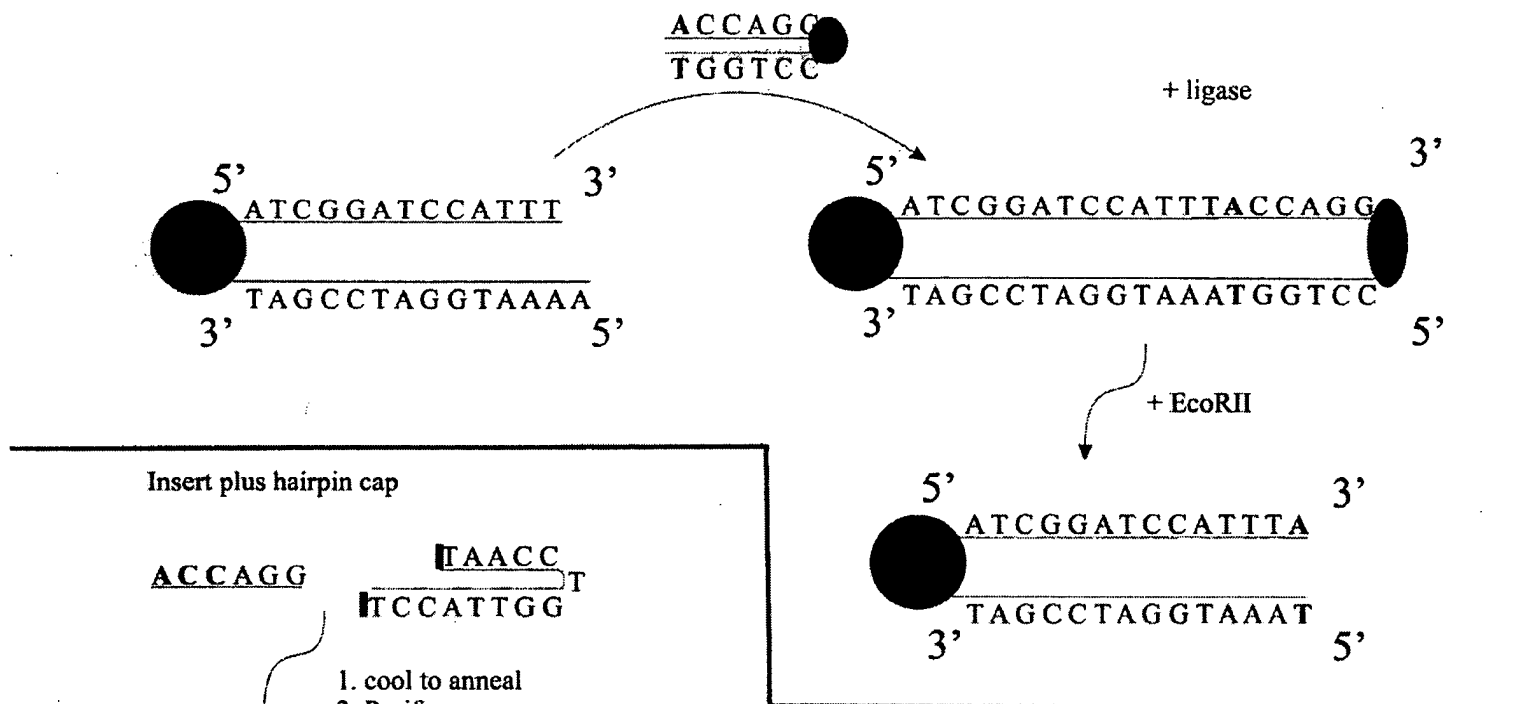
Single or double strand oligonucleotide synthesis with carbohydrate or peptide capping group.

# Figure 6B



# Figure 7

Double stranded oligonucleotide synthesis with restriction site oligonucleotide cap.



Insert plus hairpin cap

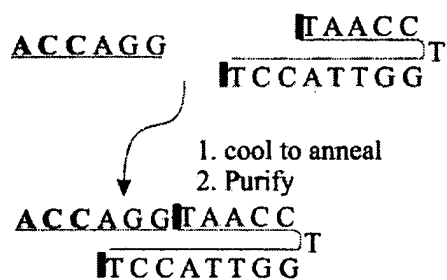
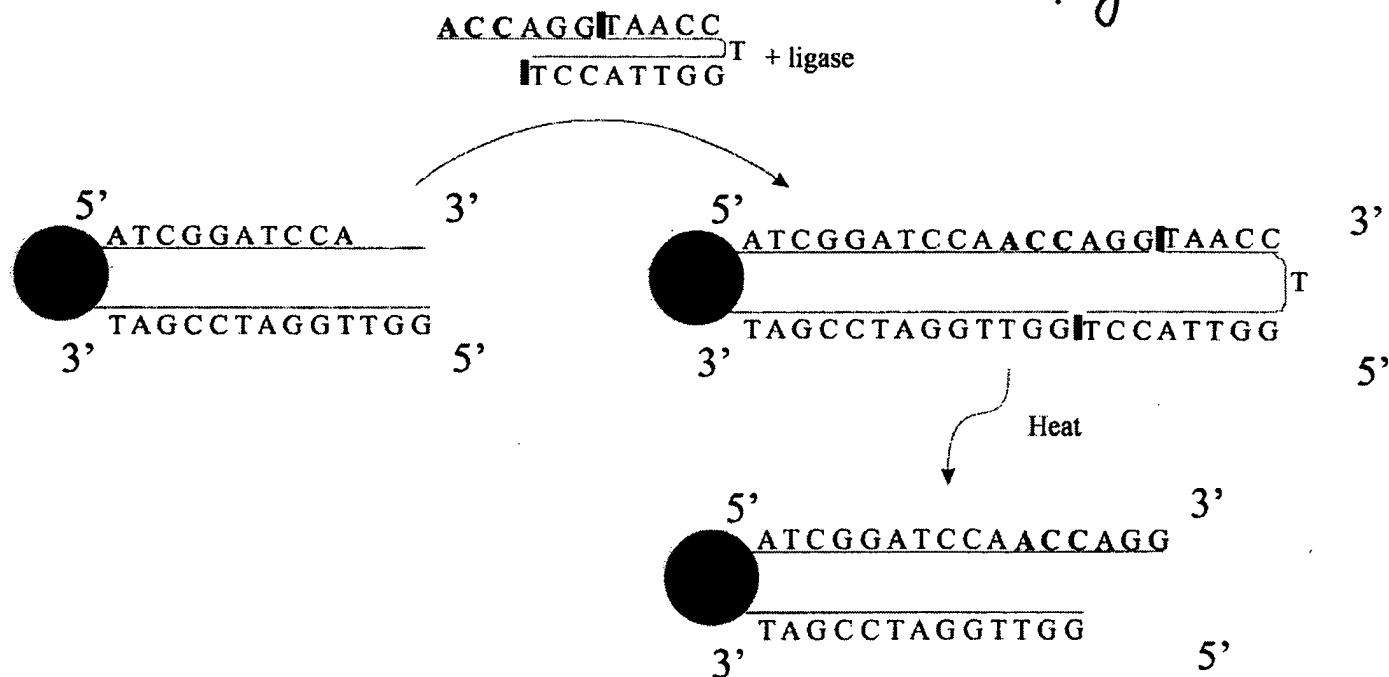


Fig 8A



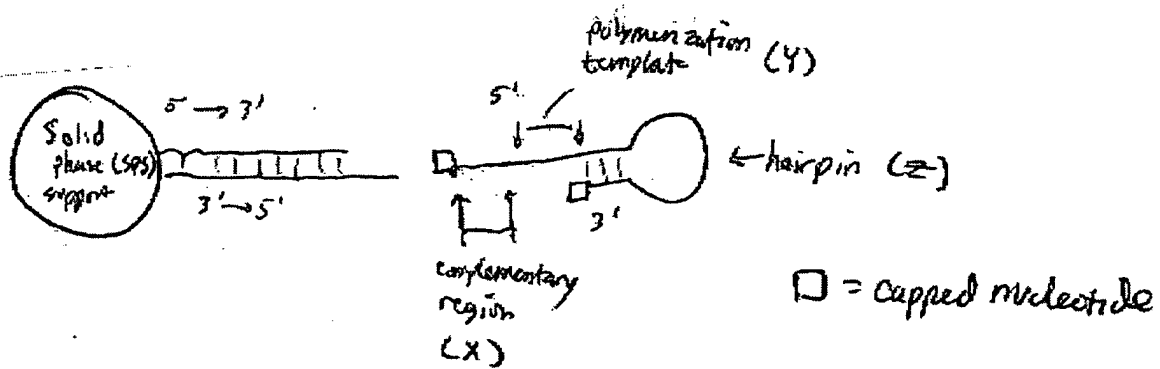
Christopher Emig - Brian Chow - Joseph Jacobson

Nov 17, 2003

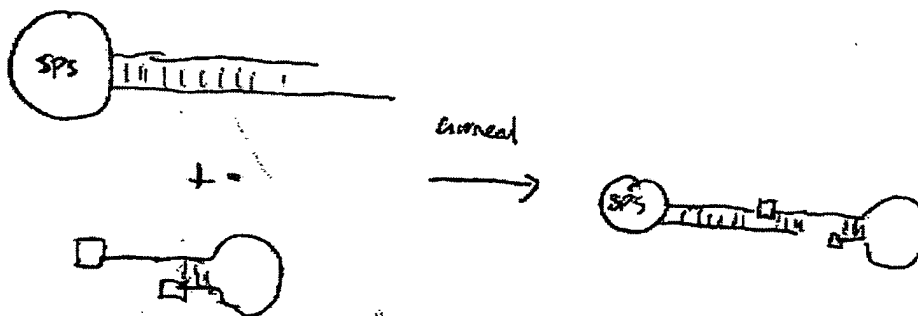
illustrations by CJE



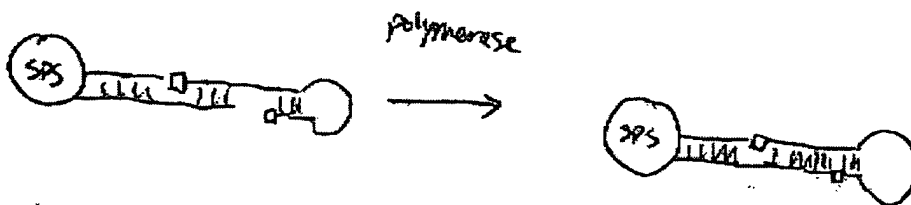
# Figure 8B



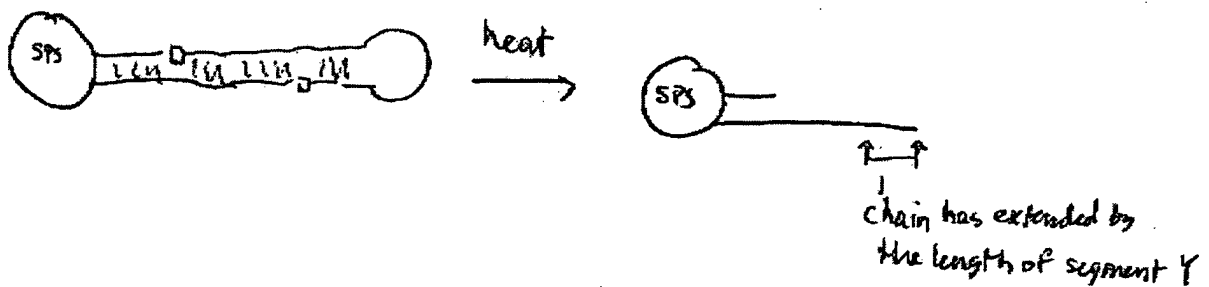
Step 1



Step 2

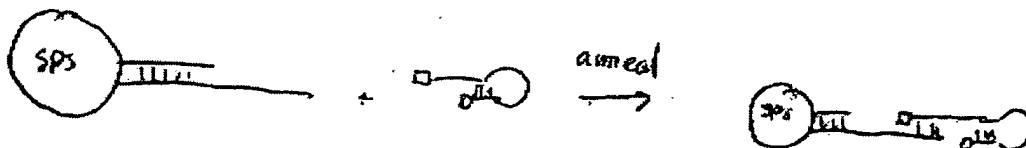


Step 3

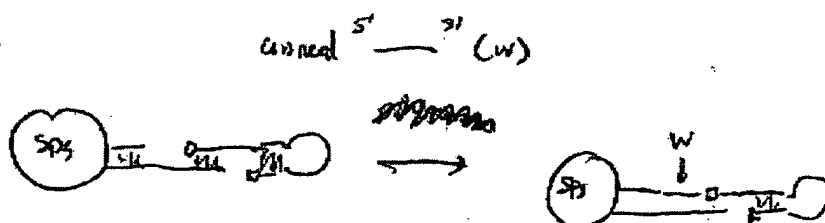


# Figure 8C

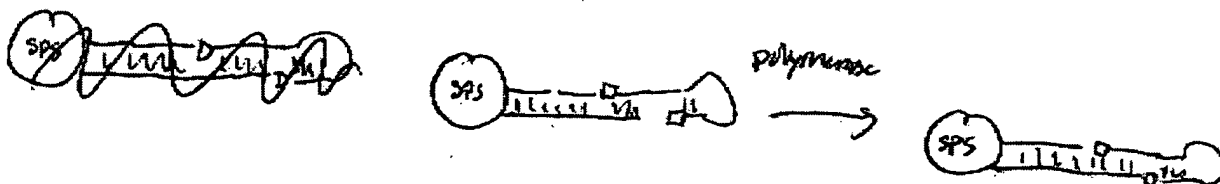
Step 1



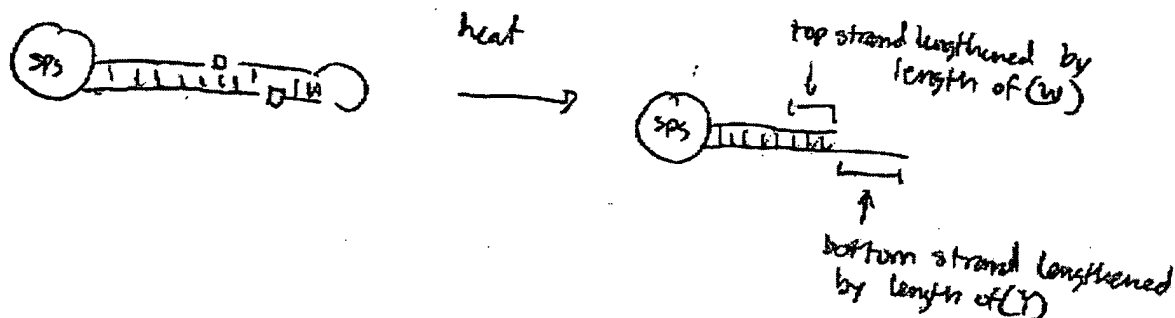
Step 2



Step 3



Step 4



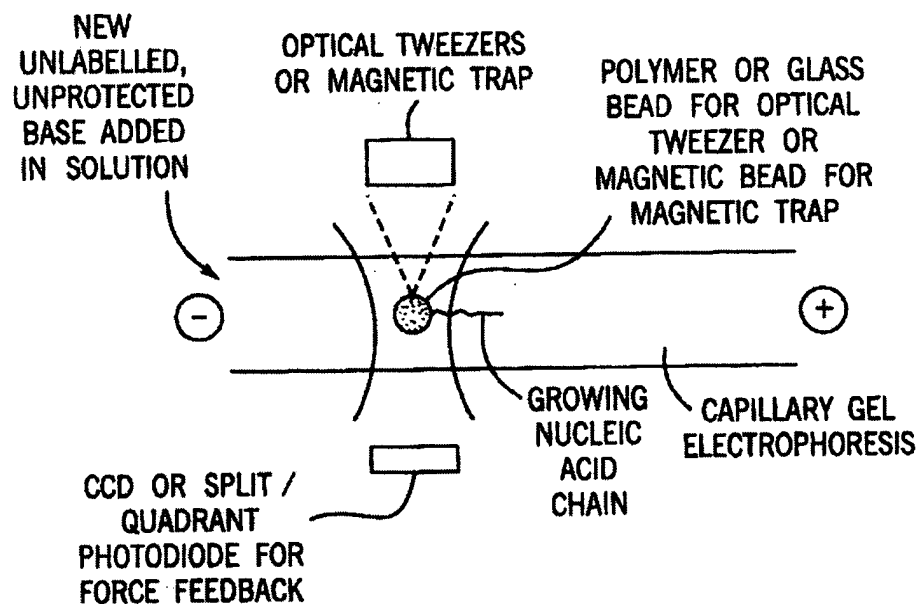


FIG. 9A

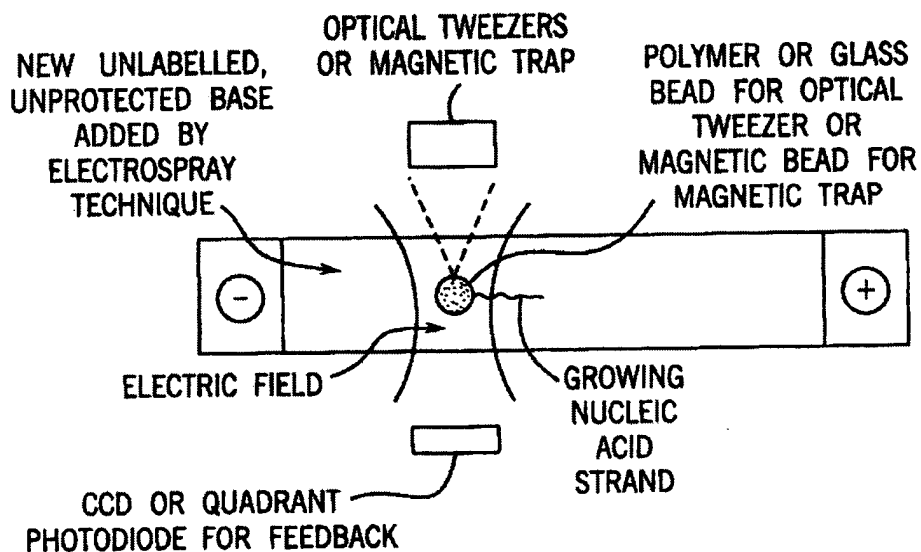


FIG. 9B

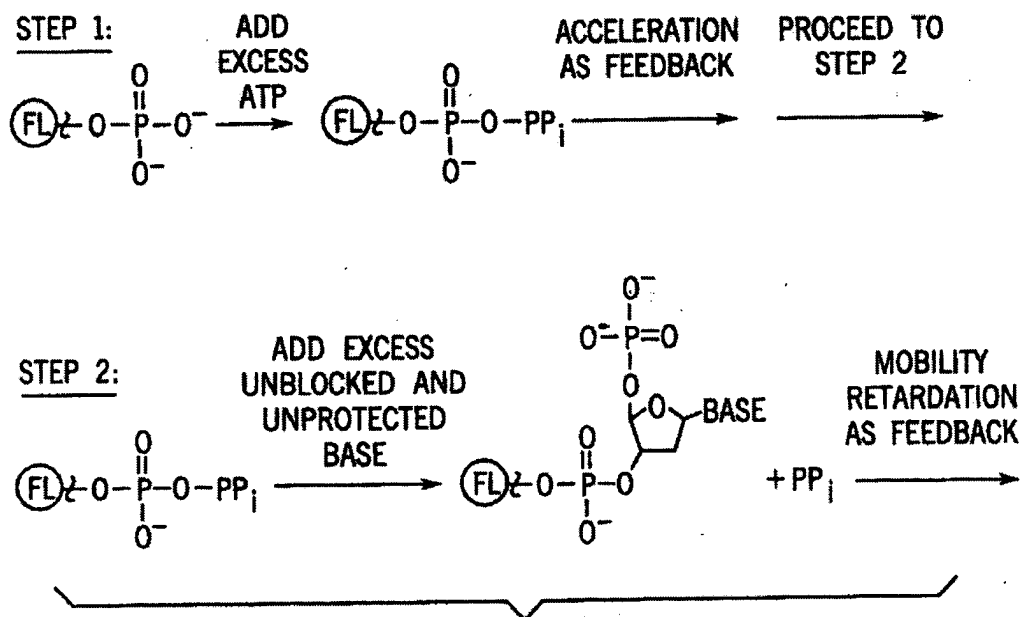
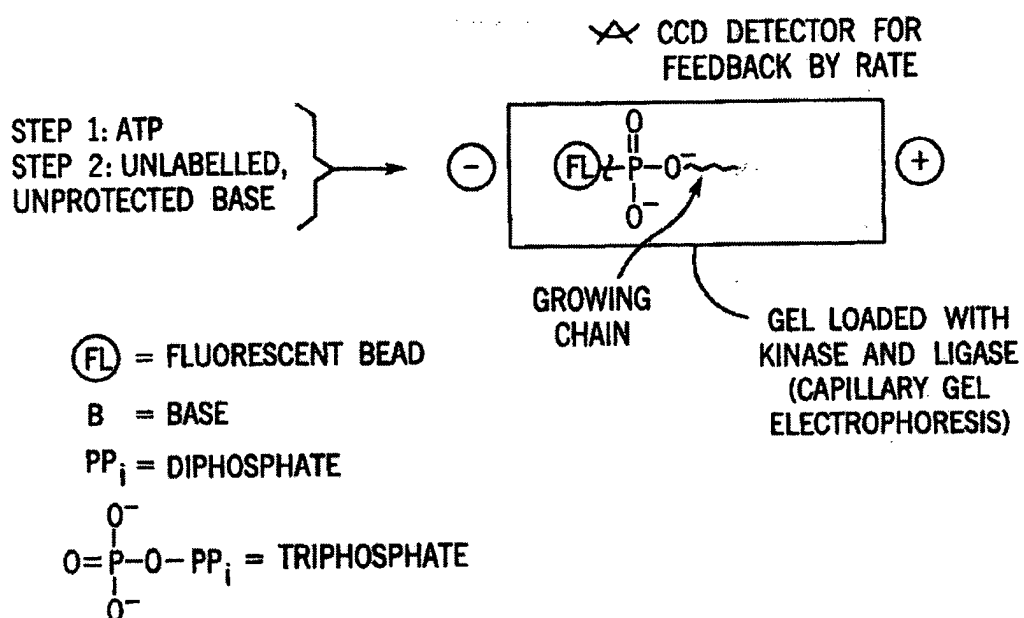


FIG. 10

Figure 11A

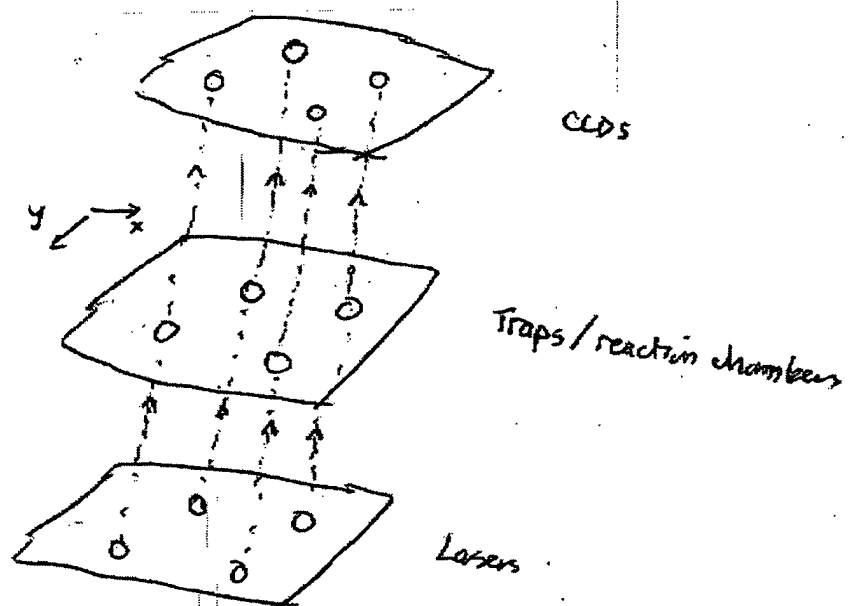


Figure 11B

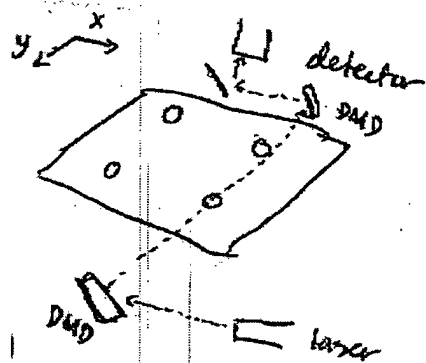


Fig. 12A

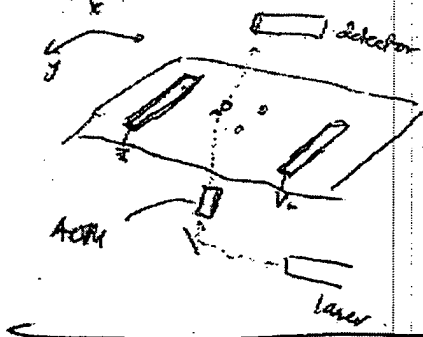


Fig 12B

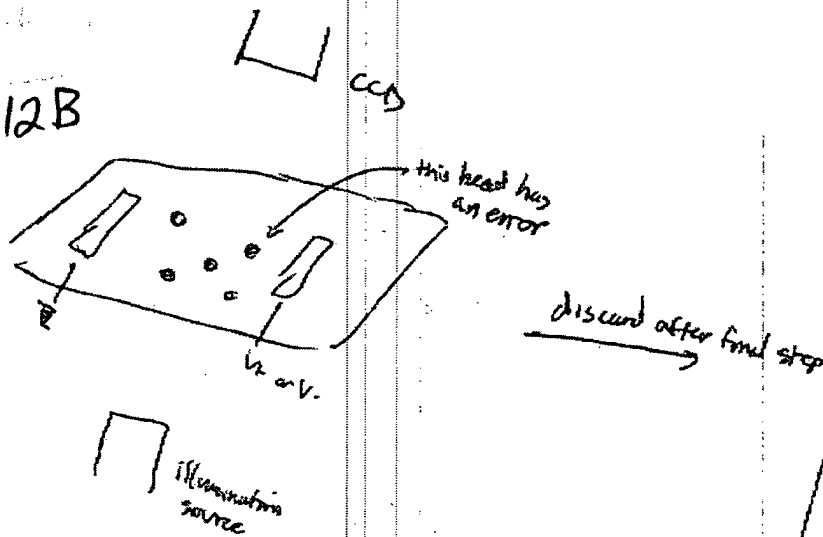
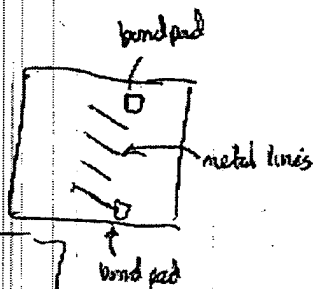
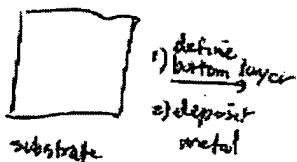
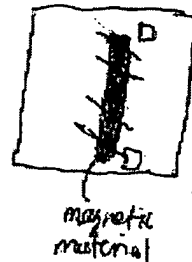


Fig 13A

top down view

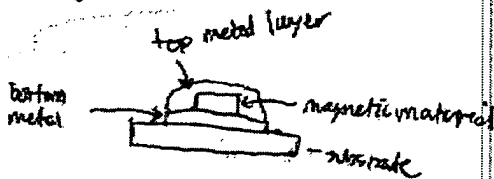


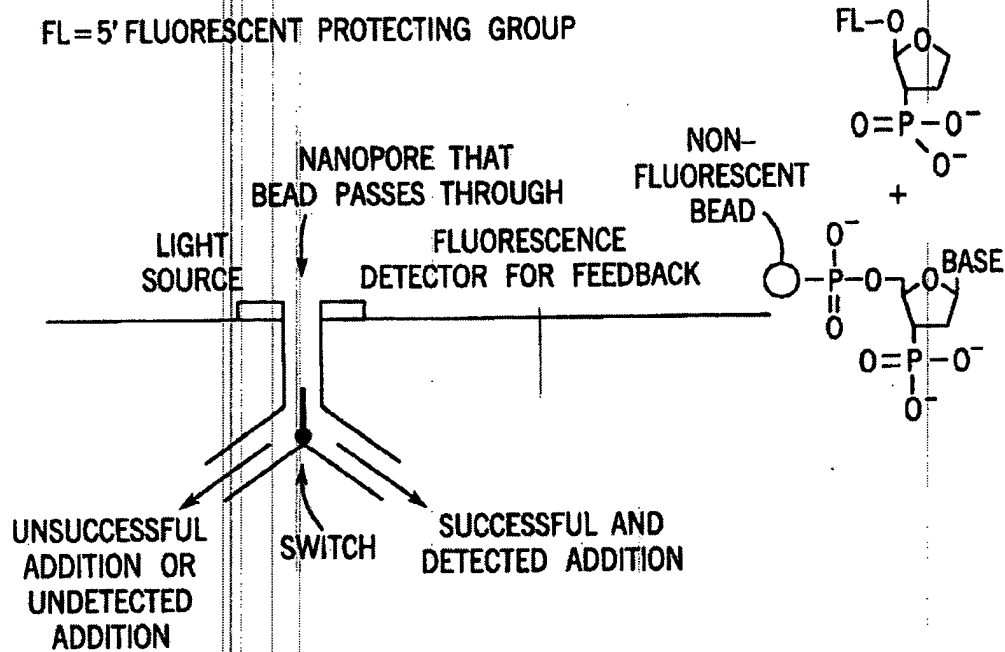
3) define magnetic core  
4) deposit core



5) define metal layer  
6) deposit metal layer

Fig 13B





STEPS:

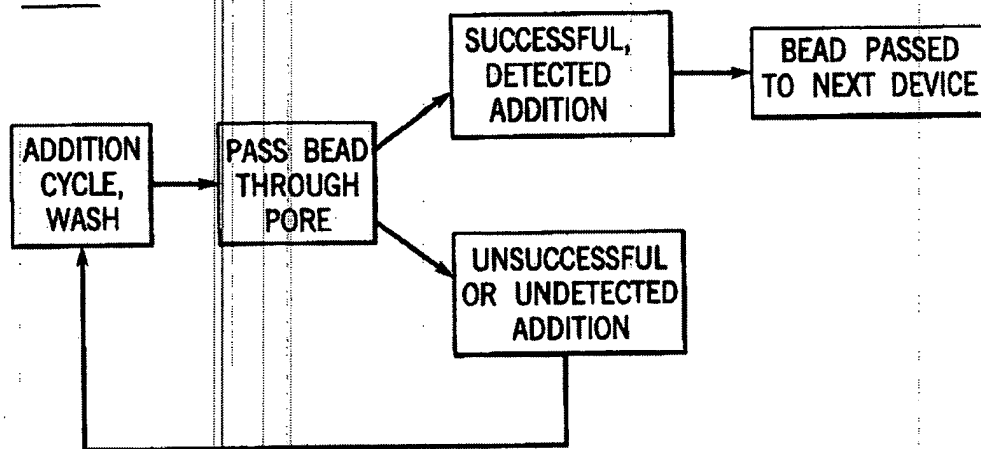


FIG. 14A

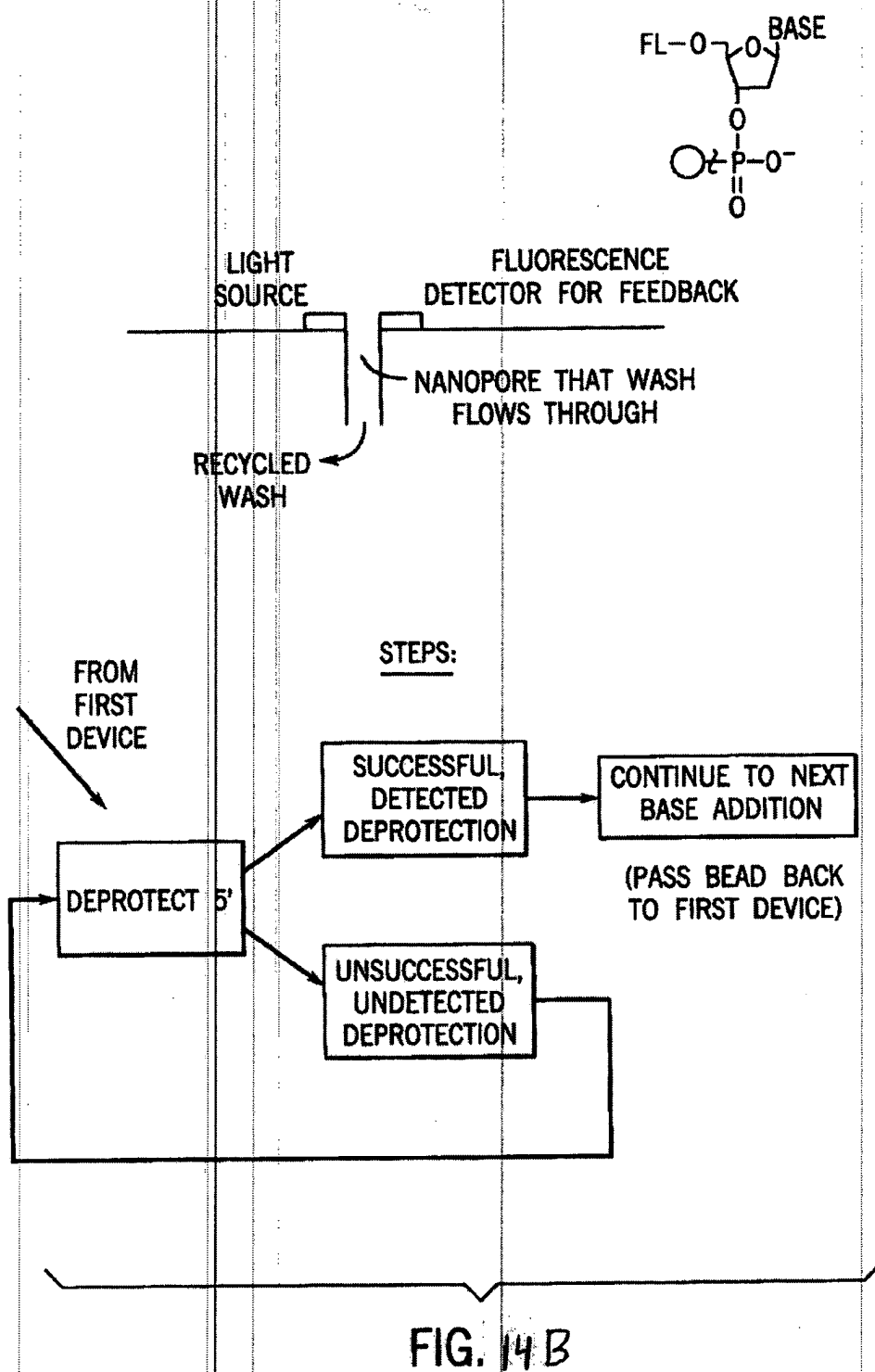




Figure 15A

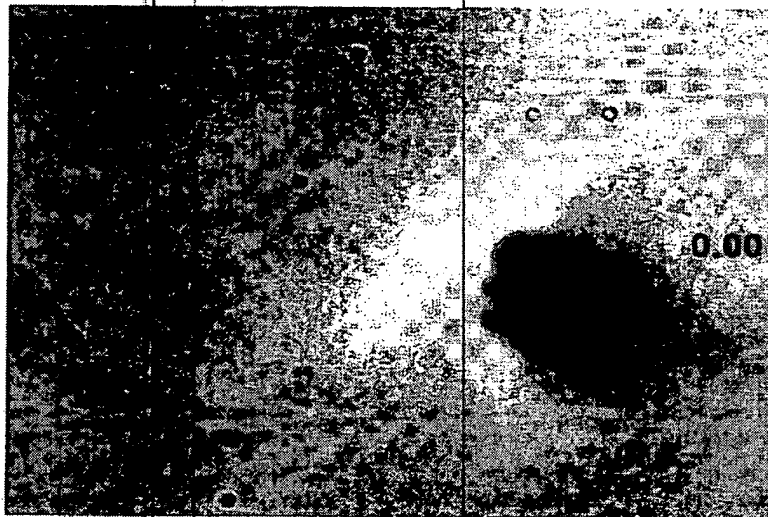


Figure 15B

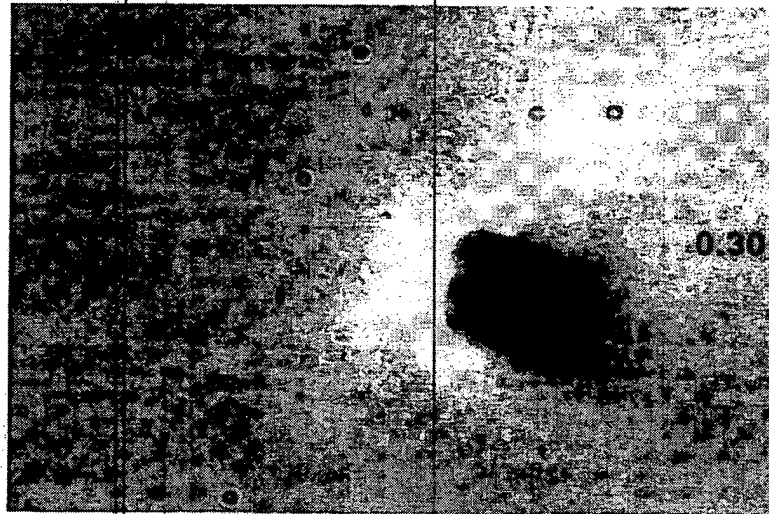


Figure 15C

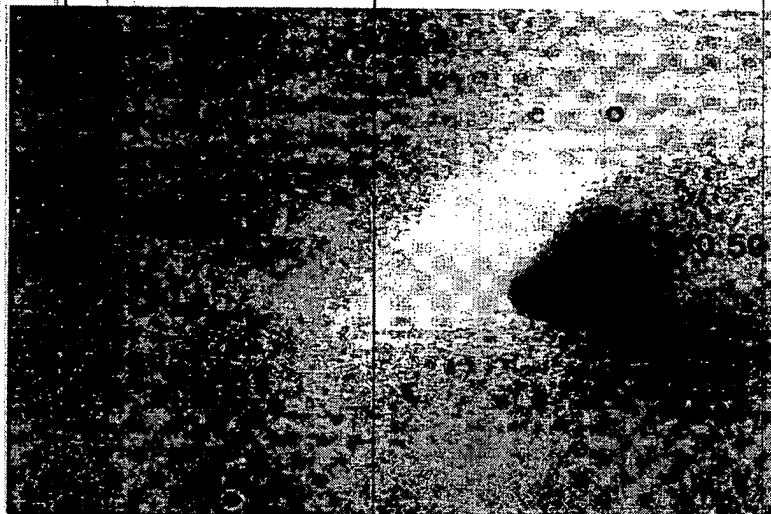


Figure 15D

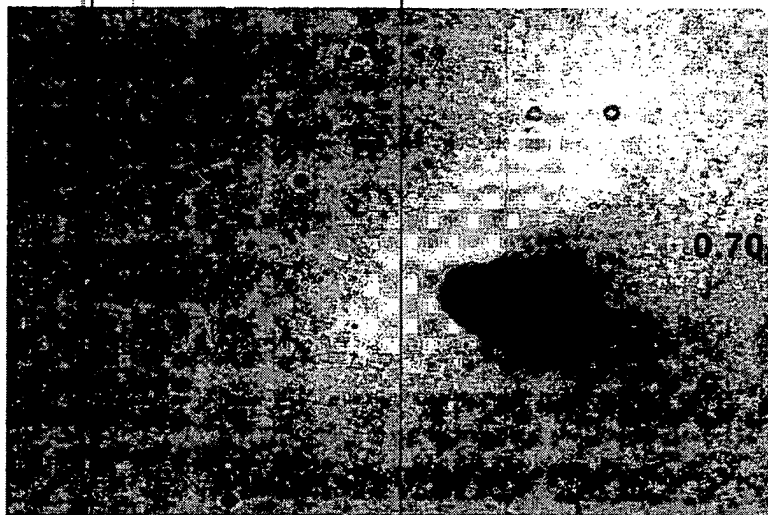
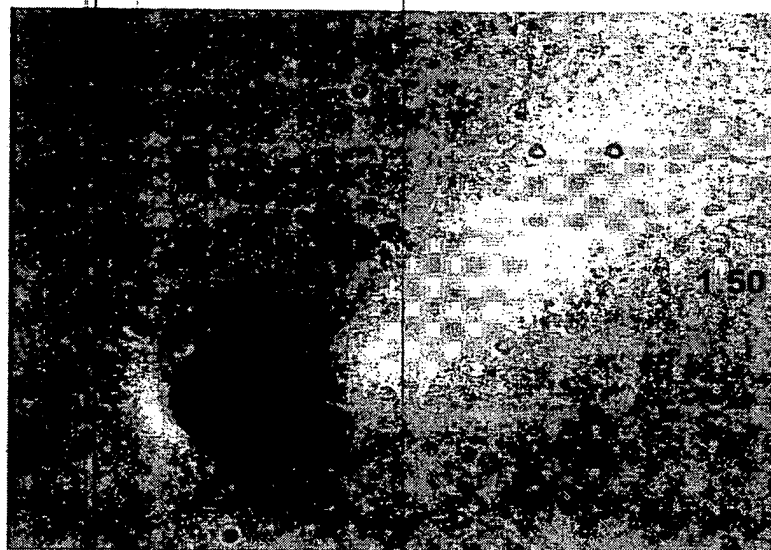


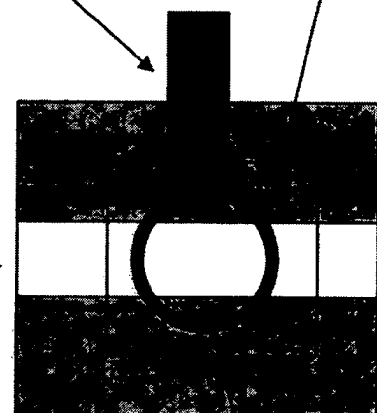
Figure 15E



# Top down

Al plated slide

Magnetic pole



Glass cover slip

GND

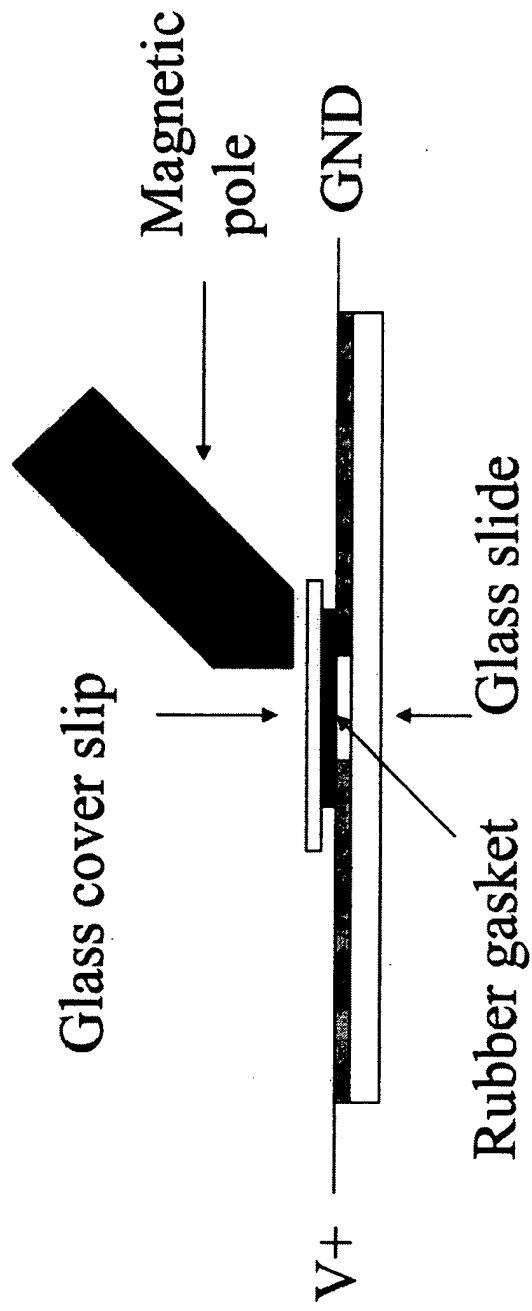
V+

Rubber gasket

Figure 15F

# Side view

Fig. 15G



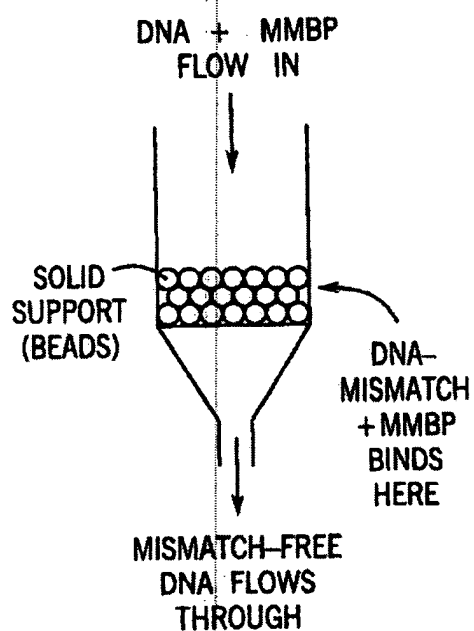
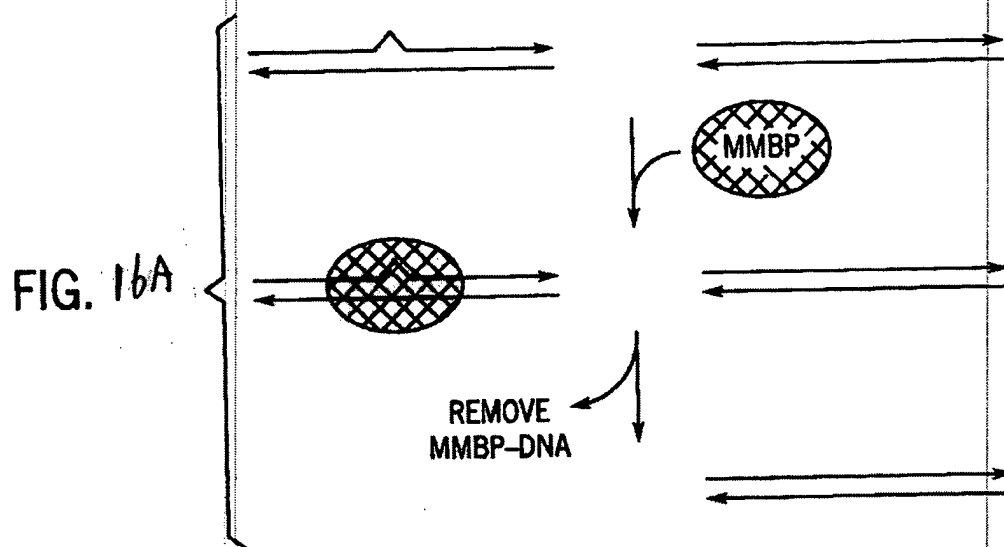


FIG. 16B

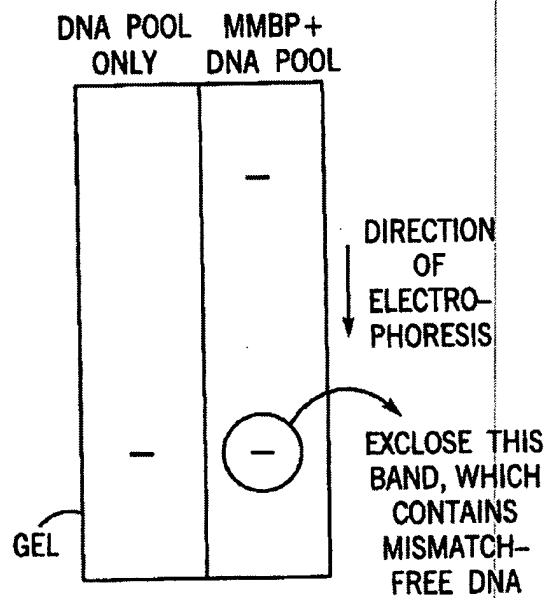


FIG. 16C



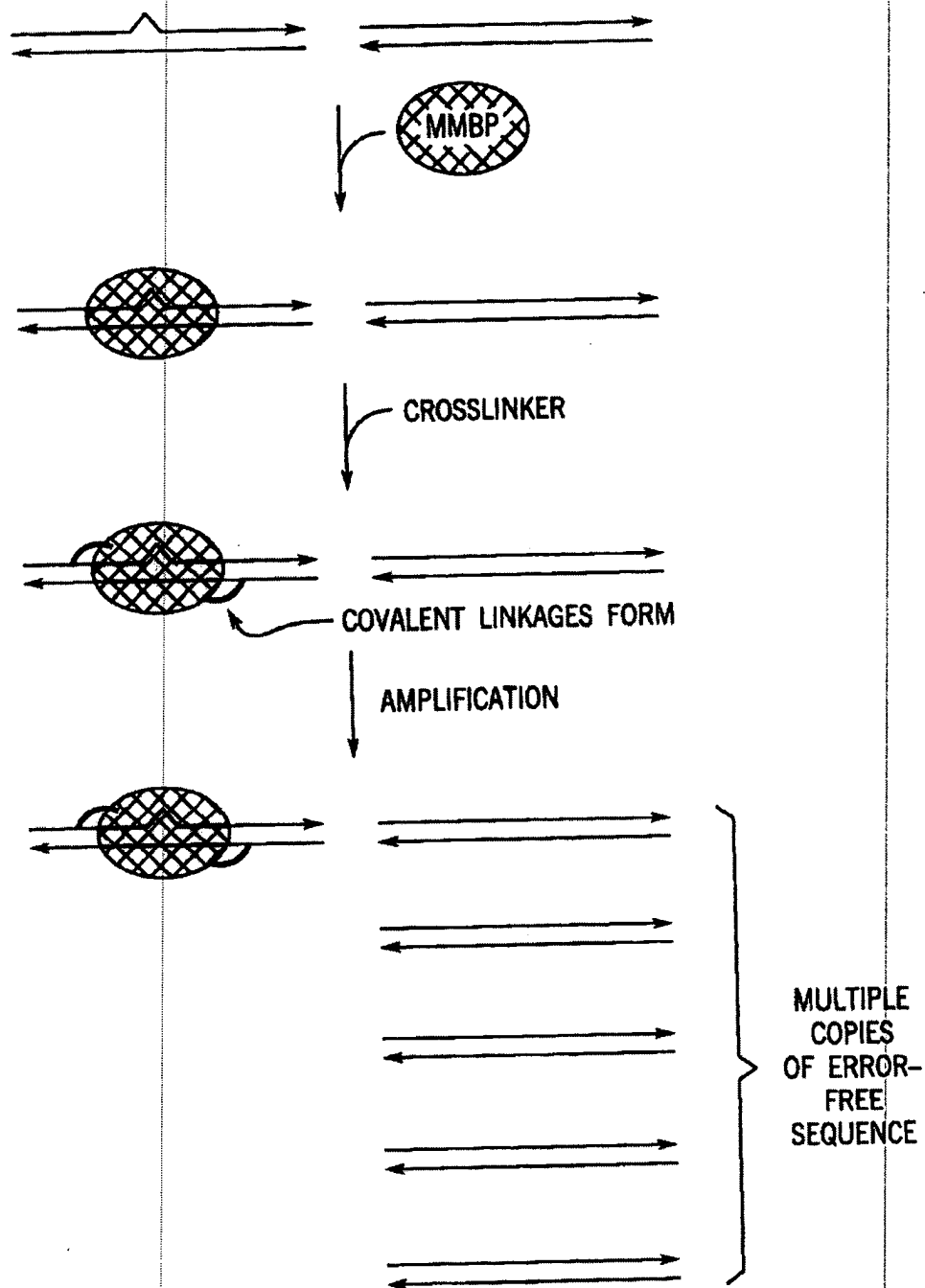


FIG. 17

FIG. 18

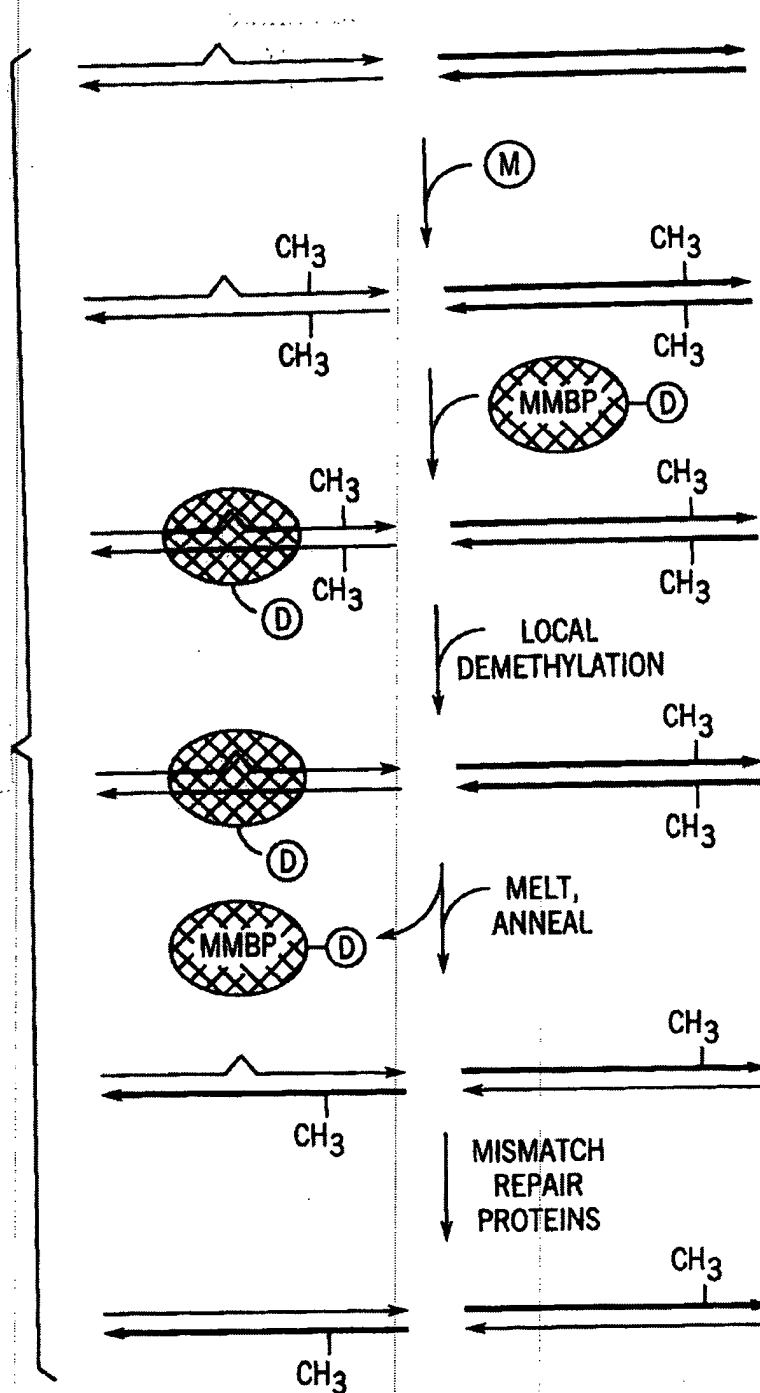
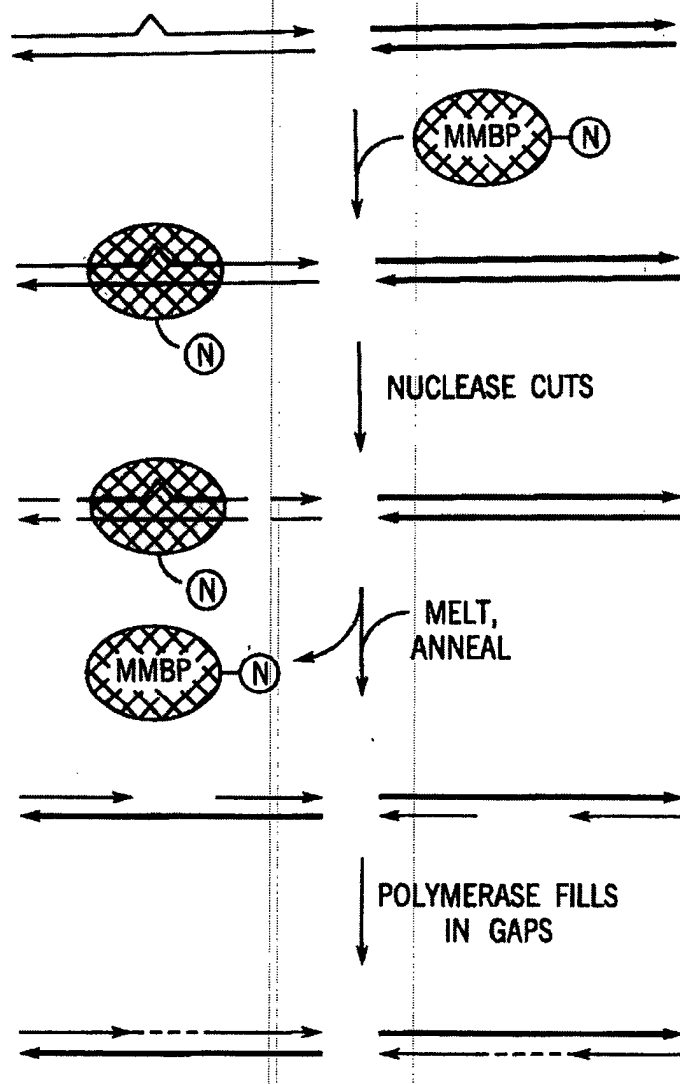
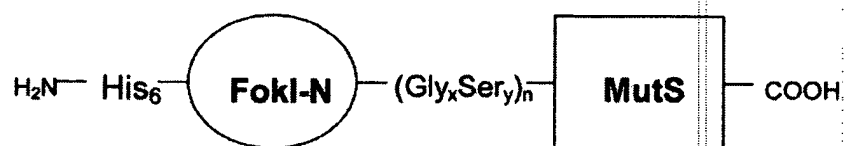


FIG. 19



**Figure 20**

**A)**



**B)**

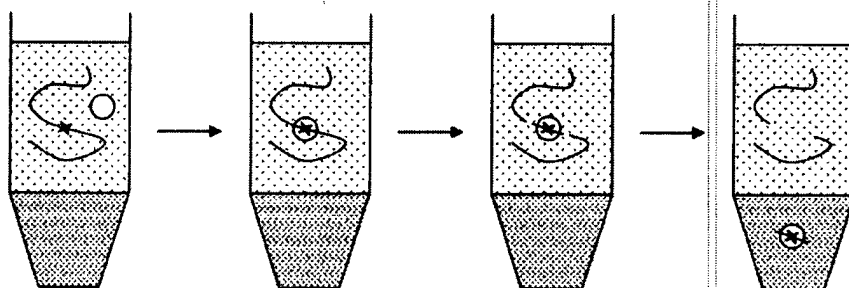
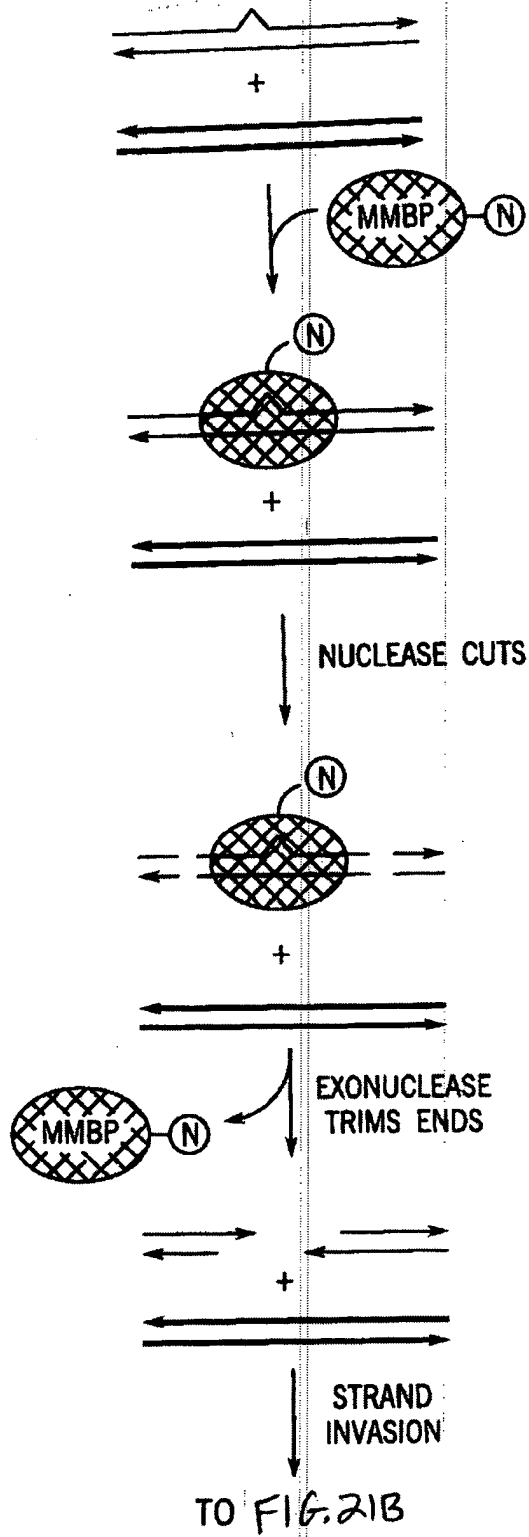


FIG. 21A



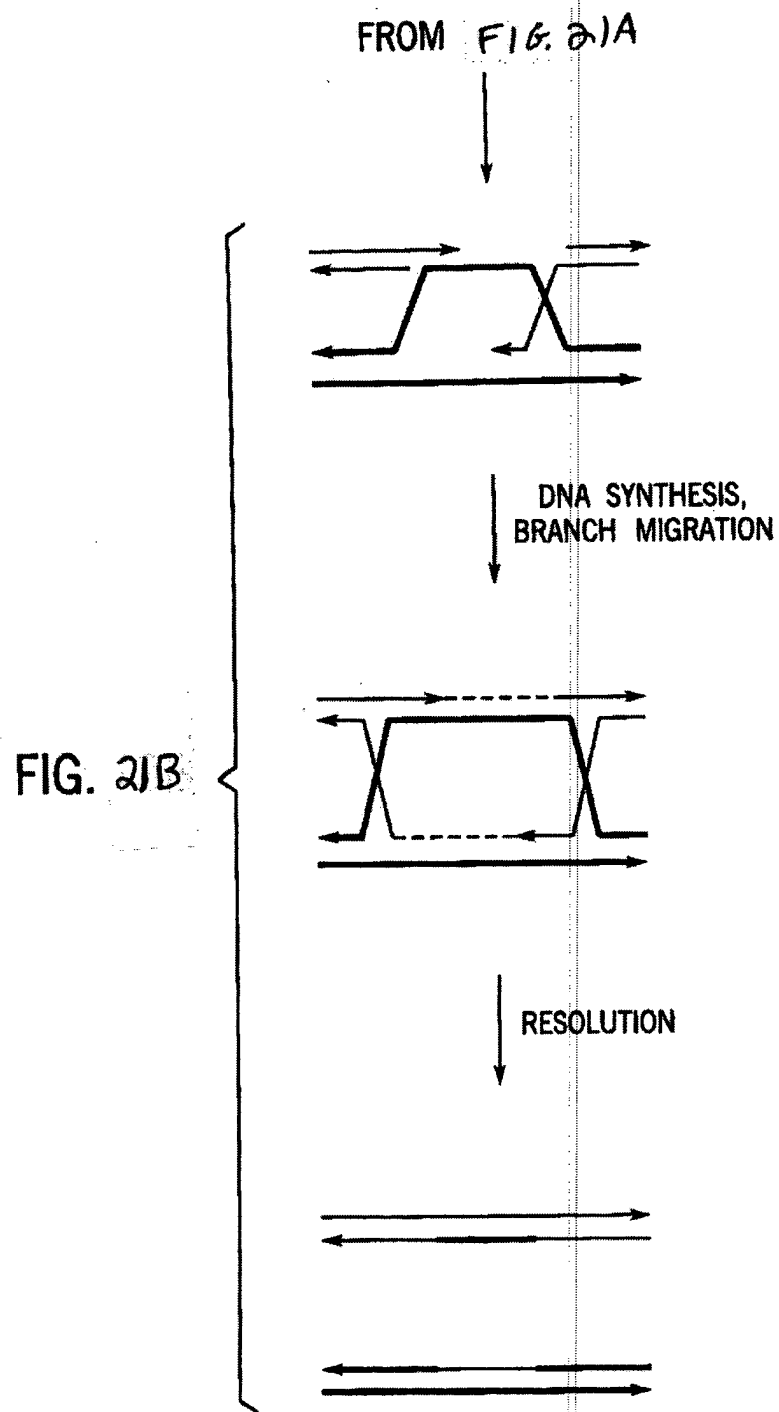


FIG. 22

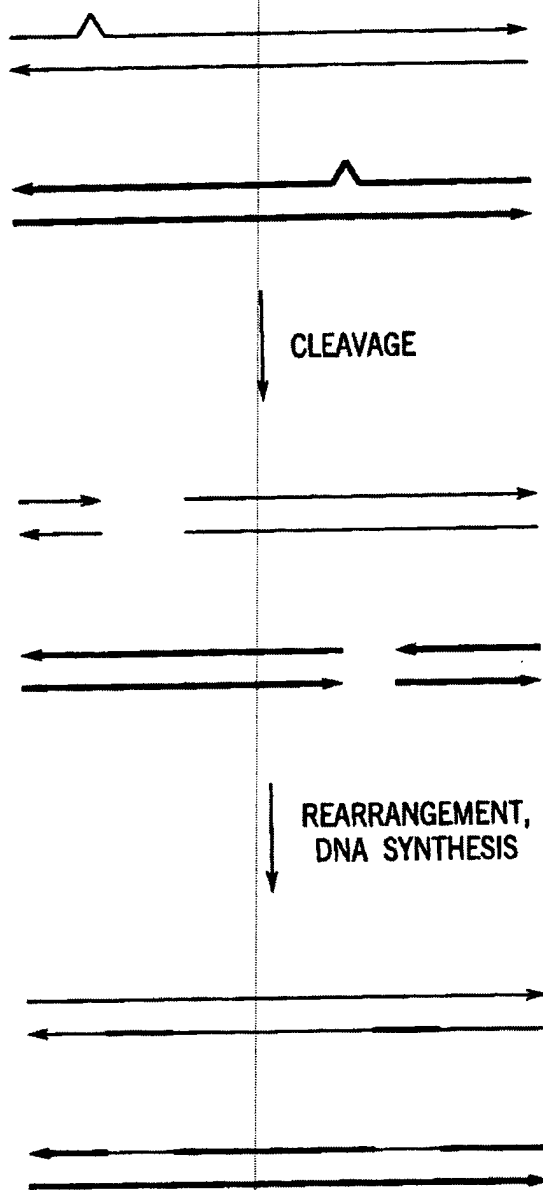
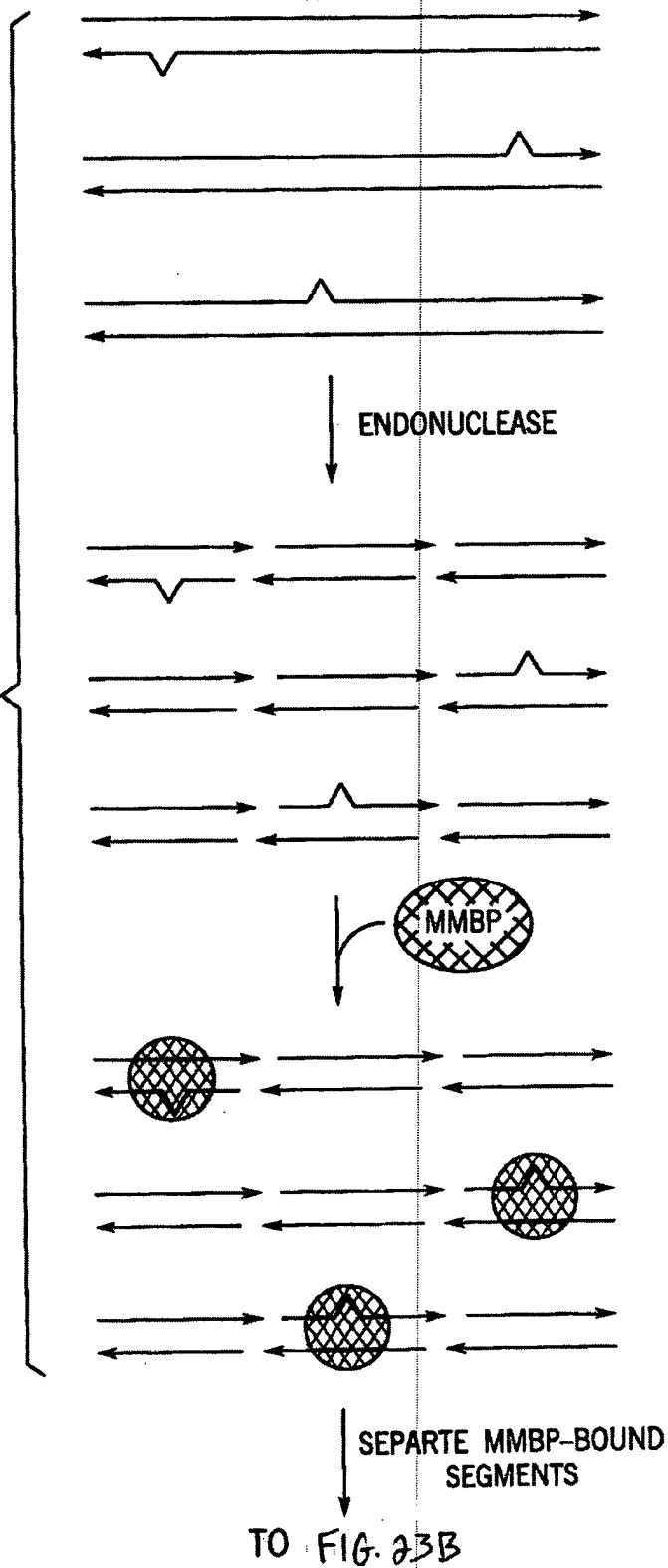
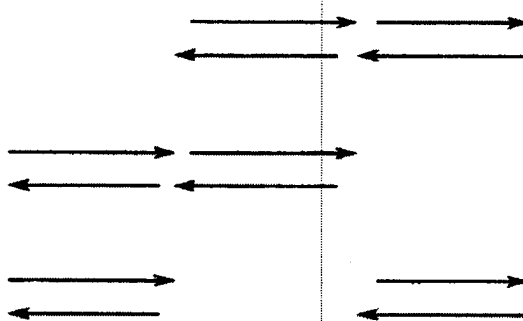


FIG. 23A

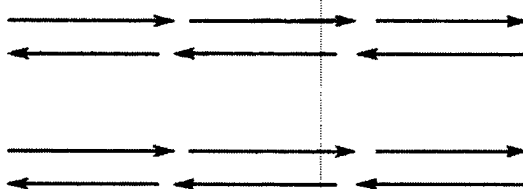




FROM FIG. 23A



ANNEAL COHESIVE ENDS



LIGATE

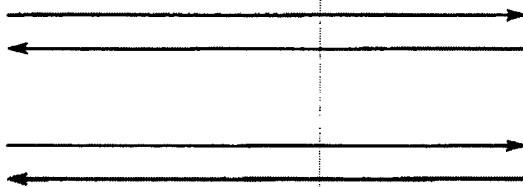
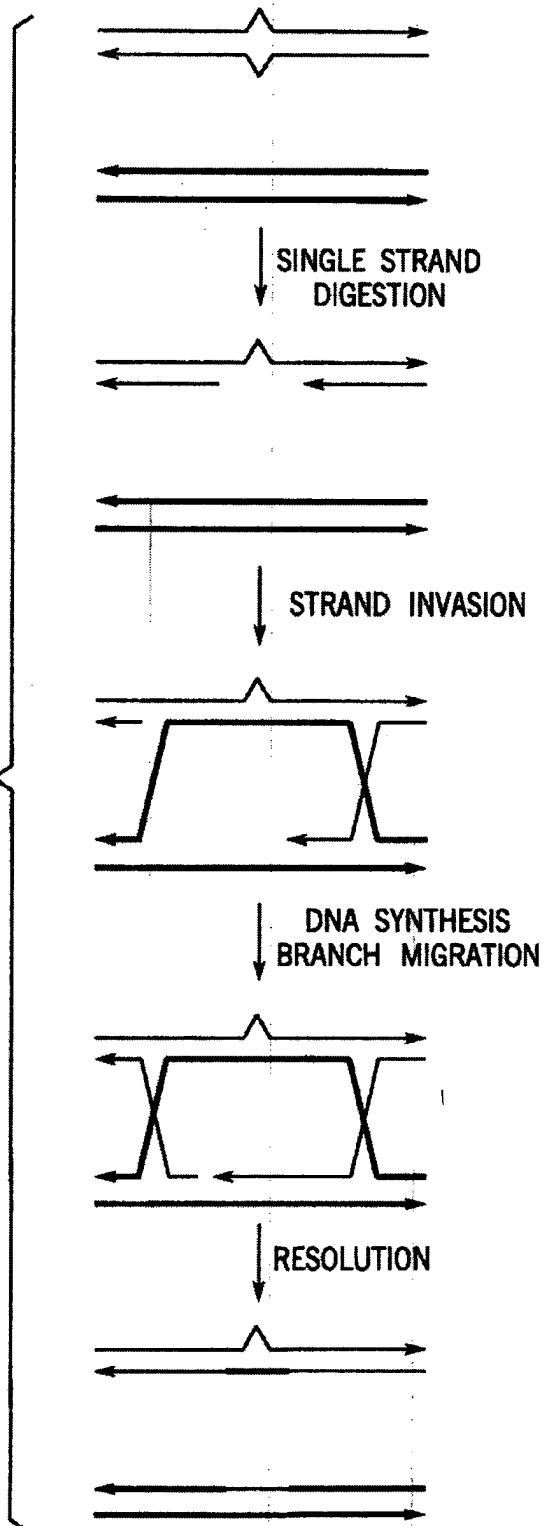


FIG. 23B

FIG. 24



**Figure 25**

